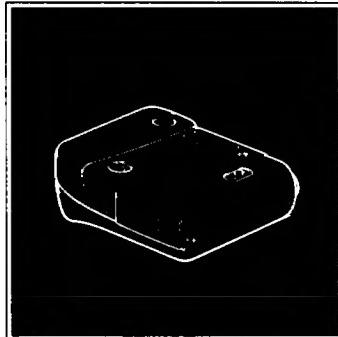


Still Video Camera**MVC-A10****Operating Instructions**

Before operating the unit, please read this manual thoroughly
and retain it for future reference.

To record and play back with this unit,
the MAP-T2 playback controller is necessary.
The MAP-T1 playback adaptor cannot be used with this unit.

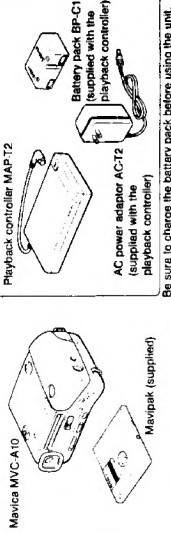


Hi-Band
Mavica
Hi VF

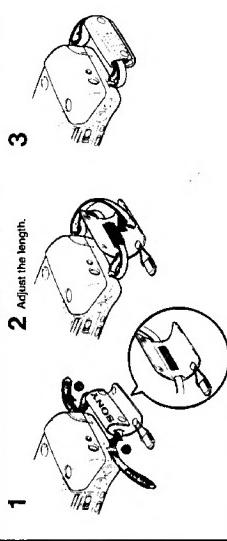
Quick Reference

The following items are necessary for recording.

To use this unit, the MAP/T2 playback controller is necessary.
The MAP/T1 playback adaptor cannot be used with this unit.



How to attach the supplied grip belt



Recording

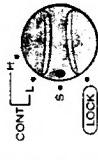
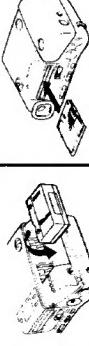
For details, refer to page ●

- 1 Insert the fully-charged battery pack.
- 2 Insert the Mavipak.

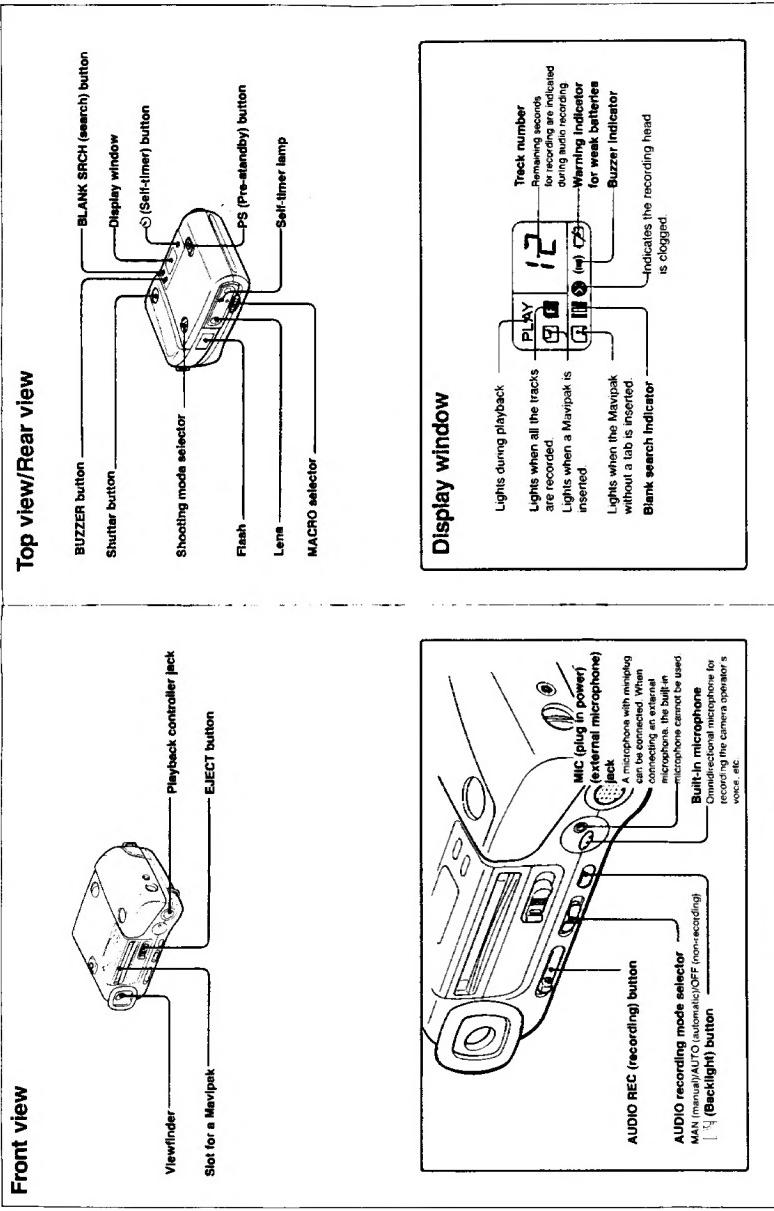
- 3 Set the shooting mode selector to S.

- 4 Set the AUDIO recording mode selector to AUTO.

- 5 Look into the viewfinder and frame the subject.
- 6 Press the shutter button halfway. When the green LED glows in the viewfinder, press the button all the way down to take a picture. After shooting, sound can be recorded automatically for 10 seconds.



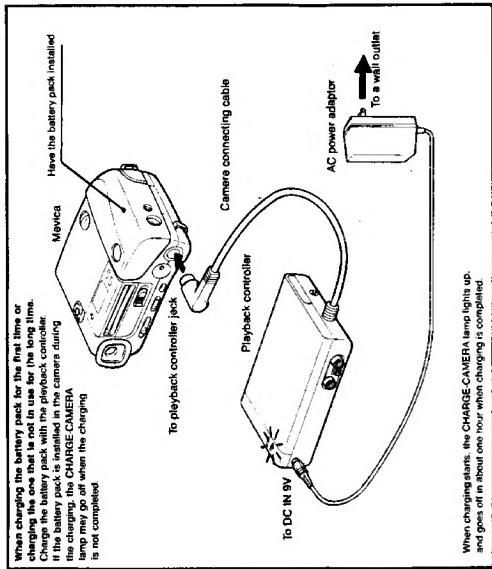
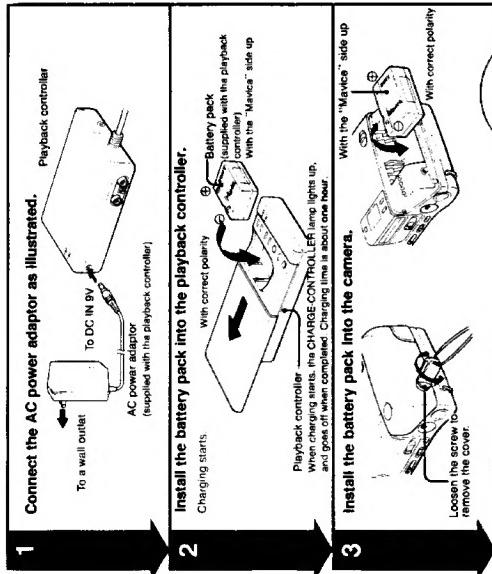
Location and Function of Parts



Power Source

Before operating the unit, be sure to charge the battery pack fully with the playback controller.

To charge the battery pack in the camera



When the battery pack is installed in both the camera and the playback controllers!

Continuous charging can be carried out — from camera to playback controller.

Number of tracks that can be recorded with one fully charged battery

Video recording only

About 500 pictures (10 seconds/picture) can be recorded when the battery is charged for one hour according to the test specified by Sony.

Audio/Video recordings

About 125 pairs of picture and sound can be recorded when the battery is charged for one hour (according to the test specified by Sony).

Life of the battery pack

Replace the battery pack with a new one (BP CL option). If you can only take about half the number of pictures under average temperature, even when it is fully charged.

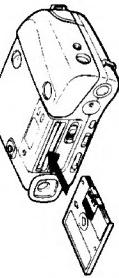
- When charging the battery pack, always use the MAP-T2 playback controller.
- Do not short the terminals of the playback controller or the battery pack by screwdrivers, pins, etc.
- Do not recharge a fully charged battery pack, or the battery may be impaired.

Precautions on the battery pack

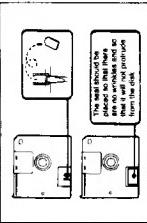
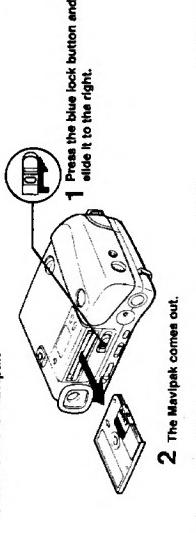
When the camera is not in use for a long time, remove the battery pack. If the battery is installed, even in the shooting mode selector is set to LOCK, a negligible amount of electric current flows.

Inserting the Mavipak

Insert until it stops — in the direction of the arrow.



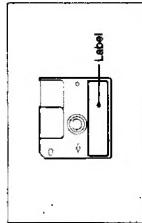
To take out the Mavipak



To prevent accidental erasure

- Take off the tab on the back of the Mavipak.
- When the hole from which the tab was taken is covered by a seal supplied with the Mavipak, it can be recorded again.

To make a memorandum of recorded contents



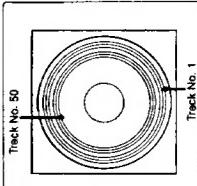
- Place the label at the position indicated on the picture at right. When the tab is not placed at the position shown, it can cause malfunction and damage.

Precautions

- Never open the protective shutter.
- Do not place the Mavipak where there is magnetism (on top of a speaker box, etc.). This can cause the Mavipak to be erased, or be of poor quality.
- Do not leave the Mavipak in the camera for a long period of time when not in use.
- Do not leave the Mavipak where there is direct sunlight, near heaters, or in a dusty place.
- When changing the Mavipak, avoid doing it in rain or snow, or in dusty places. When water or dust gets inside in the camera, it causes damage.

Mavipak

The Mavipak is a 2-inch video tape. It conforms to the unified standard developed by the Still Video Camera Committee. It is capable of recording pictures and sounds. The frame where the picture or the sound is recorded is called a track. A total of 50 pictures and sounds can be recorded magnetically on tracks numbered from 1 to 50. Therefore, a recorded track can be erased, or recorded again. Use a Mavipak or a floppy disk with a mark.



Recording

Install the fully-charged battery pack and the Mavipak into the camera before recording. (Refer to pages 6 through 8.)

How are pictures and sounds recorded on the Mavipak?

Video recording

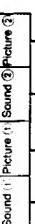
A video recording requires one track for each picture. When recording pictures only, a Mavipak can hold 50 pictures.

When playing back the Mavipak on which sound is recorded

Ex: In the case of a Mavipak on which sound is recorded with the AUDIO recording mode selector set to AUTO.

Even if only pictures are recorded, sound can be recorded afterwards on narration for the recorded pictures. For details, refer to the operating instructions for the MAPT2 (page 6).

When recording

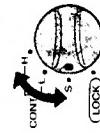


When playing back



Even if only pictures are recorded, sound can be recorded afterwards on narration for the recorded pictures. For details, refer to the operating instructions for the MAPT2 (page 6).

1 Select the shooting mode.



2 Select the AUDIO recording mode.



When the selector is set to AUTO

To shoot a single picture

S: A single picture is shot each time the shutter button is pressed.

To shoot continuous pictures

CONT L (continuous low):
4 pictures per second are shot while the shutter button is pressed. Useful in active sports.

CONT H (continuous high):
10 pictures per second are shot while the shutter button is pressed. Useful for studying the swing in tennis, golf, etc. by stopping the picture.

When using flash in the CONT L and H modes, continuous shooting of one picture per approximately 2 seconds can be done (when using a fully-charged battery pack).

When the selector is set to MAN



AUTO (automatic recording):
Sound is automatically recorded for about 10 seconds immediately after shooting.

When the selector is set to OFF



MAN (manual recording):
Sound can be recorded for about 10 seconds when you would like to do so, within 5 minutes after shooting.

When not recording sound

Set the selector to OFF.

Sound playback for continuous shooting mode

The sound is played back, corresponding to the first picture.

CAUTION

Do not use the AUDIO recording mode selector during shooting. Otherwise, recording cannot be completed.

Recording

Macro (Close-up) Shooting	
<p>You can shoot as close as about 50 cm (20 in.) from the subject.</p> <p>Subject</p> <p>In the close-up shooting, keep about 50 cm (20 in.) away from the subject.</p> <p>50 cm</p> <p>When the MACRO (close-up) selector is set to MACRO, shoot from less than 50 cm (20 in.) away. If the MACRO selector is set to MACRO, the subject becomes blurred.</p>	
<p>1 Set the MACRO (close-up) selector to MACRO while keeping the center button pressed.</p> <p>The green lamp blinks in the viewfinder.</p> <p>MACRO (Close-up) selector</p> <p>2 Lightly press the shutter button.</p> <p>The green lamp is lit in the viewfinder.</p>	
<p>3 Press the shutter button all the way down.</p> <p>Caution</p> <p>The auto to do close-up shooting where there is enough light. When shooting in macro in a dark place, pictures may not be taken properly because the flash lights automatically.</p>	
<p>CAUTION</p> <p>The edge of picture may be clipped when playing back, depending upon the TV set to avoid this, leave some space around the subject in the close-up shooting.</p>	

Shooting with Self-timer	
<p>1 Place the camera horizontally or attach a tripod.</p> <p>When not attaching a tripod, put something under the MC-A10 so that the set or a Mavica is horizontal to the ground.</p>	
<p>2 While keeping the self-timer button pressed, press the shutter button.*</p> <p>Be sure that the self-timer lamp blinks. The camera takes a picture about 10 seconds after the shutter button is pressed. A buzz will continue to sound and the self-timer lamp will continue to blink until the picture is taken. (The timing becomes rapid for the last 2 seconds.)</p>	
<p>To release the self-timer</p> <p>Set the shooting mode selector to the LOCK position.</p> <p>To record sound in the self-timer shooting</p> <p>Set the AUDIO recording mode selector to MANY. You can record any time within 5 minutes after the self-timer shooting.</p> <p>*Lightly press the shutter button, and after the green lamp is lit in the viewfinder, press the button all the way down.</p>	

Shooting in Backlit Situations	
<p>When shooting in the back light, the subject becomes dark because the background is too bright. In this case, press the backlight button before shooting. The exposure for the subject is compensated to the proper degree.</p>	
<p>The track number defining.</p> <p>Press the backlight button each time you press the shutter button.</p>	
<p>To use the backlight button in shooting continuous pictures</p> <p>The exposure is compensated for all the tracks while the shutter button is continuously pressed (continuous shooting). Once the shutter button is halfway released or completely released, the back-light adjustment does not operate. To continue shooting, press the backlight button again before pressing the shutter button.</p>	

To Record onto a Recorded Track

Since the Mavipak records pictures and sounds magnetically, it can erase unnecessary track(s) and can record again.

Erase unnecessary track(s)

The MAP-12 playback controller is needed for erasing. For details, refer to the operating instructions of the playback controller.

To record onto erased track(s)

A Mavipak on which all the tracks are erased from the Mavipak.

You can record from track No. 1, the same as a new Mavipak.

A Mavipak on which track(s) are erased

In-between are erased

1 Take the Mavipak out of the camera.

2 Press the BLANK SRCH button. It will appear on the display window.

3 Insert the Mavipak and shoot.

The camera searches for erased (unrecorded) tracks, and start recording from the track with the smallest number.

Precaution
The blank search mode cannot be set while the Mavipak is in the camera.

To release the Blank search mode

Press the BLANK SRCH button again. It will disappear from the display window. The blank search mode will also be released when the Mavipak is taken out, or when the battery pack is exchanged.

A track is blank in the following cases.

- When the recorded picture or sound is erased with a playback controller.
- When no sound is recorded within 1 minute after the picture is shot with the EDCO recording mode selector set to MAN.

- When the EDCO recording mode selector is set to OFF while still recording.

- When the AUDIO REC button is set to the left while recording pictures and sounds with the AUDIO recording mode selector to MAN.

When the blank search function is used or not

Ex: In the case of a Mavipak on which recordings from No. 1 to No. 5 were made, and tracks No. 2 and No. 4 were erased.

Without using the blank search function

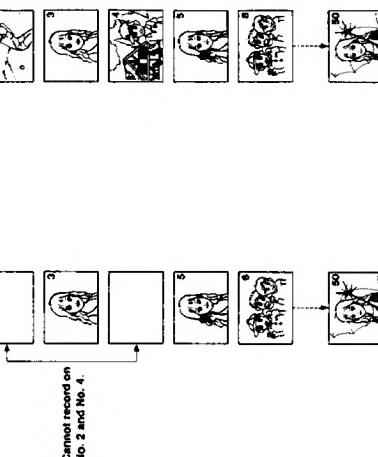
A total of 47 tracks can be recorded for No. 2, No. 4 and from No. 6 to No. 50. Continuous shooting for 2 to 4 to 6 to 50 can be done.

Using the blank search function
A total of 45 tracks can be recorded for No. 2, No. 4 and from No. 6 to No. 50. Continuous shooting for 2 to 4 to 6 to 50 can be done.

Blank search function

A pair of picture and sound, or only a picture can be recorded. A pair of picture and sound can be recorded as long as there are 2 erased (blank) tracks, even if they are not adjacent to each other (ex. No. 2 and No. 4).

Regular



Specifications

Type:	Still video camera with high band
Recording:	Normal
Recording capacity:	Unites standard based on Still Video Camera Committee
Image sensor:	25 still pictures with sounds (still recording)
Audio recording:	25 recordings
Audio recording mode:	5.6 seconds max / 25 recordings
Lens:	Automatic recording
Image sensor:	Macro 1/2.8
Image sensor:	1.3 m/s (1 m - infinity) 50 cm (1.6 ft at macro setting)
Image sensor:	2/3 inch MOS image sensor (280,000 pixels); sensitivity equivalent to ISO 80 (lens)
Exposure control:	Programmed auto-exposure
Shutter:	control range: EV 9-17
Shutter:	Flash (iris automatically below EV 9
Shutter:	Electronic shutter built in the image sensor
Shutter:	speed range: 1/60 - 1/500 sec
Metering system:	Center weighted direct metering by the image sensor
Flash:	Automatic activation
Shooting mode:	guide number 11
Shooting mode:	S - Single picture shooting
Shooting mode:	CNT L - Continuous shooting at 4 pictures per sec
Shooting mode:	CNT H - Continuous shooting at 10 pictures per sec
Metering system:	Electronic (Yoke), 10-second delay
Operating temperature:	41°F - 104°F (5°C - 40°C)
Power requirements:	AC/DC with BP C1 battery pack
Dimensions:	Aprox. 144 x 56 x 108 mm (5 1/2 x 2 1/4 x 4 1/4 in) (W/H/D)
Weight:	Aprox. 920 g (1 lb 6 oz) including battery pack
Microphone:	Built in (electret condenser microphone) (omnidirectional)
MIC input jack:	Miniflack - 60 dB, low impedance
MIC input jack:	With 2.5 - 5V DC output.
Impedance:	Impedance 6 k ohms
Supplied accessories:	Microak (1)
Supplied accessories:	Soft case (1)
Supplied accessories:	Grid belt (1)
Optional accessories:	Still video system case LCH-A10
Optional accessories:	Manivak VFD-50
Optional accessories:	Battery pack BP C1
Optional accessories:	Cleaning disk VFD-25CL (available in the U.S.A. only)
Optional accessories:	Electret condenser microphone ECM-144

Design and specifications subject to change without notice

Troubleshooting

Before going through the check list below, first refer back to the connections and operating procedures. Should any problem persist after you have made these checks, consult your nearest Sony service facility. The number in black is the page number to refer to.

Shooting

Symptom	Cause	Remedy
Will not shoot when shutter button is pressed.	No indicator in the viewfinder.	Insert a fully-charged battery pack. See page .
	The battery is consumed.	Send to S. DON'T OR H. See page .
	The shooting mode selector is set to the LOCK position.	Refer to "When the ad lamp blinks in the viewfinder and the buzzer sounds, the Mavik is ejected when inserted into the camera".
	A red lamp lights up when the shutter button is pressed.	Insert the Mavik again. If it is ejected again, replace the Mavik with a new one. Put in a fullycharged battery pack. See page .
	The Mavik is not inserted correctly.	The battery pack has been consumed.
Teles time for the green lamp to light up in the viewfinder.		

Playing back picture

Symptom	Cause	Remedy
The picture is blurred.	The subject is too close.	Be more than 1 m (5 ft) away from the subject.
	Hands are shaking.	Hold the camera still when shooting.
	The MACRO selector is set to MACHO.	Set the selector to the left when not shooting in macro.
	The picture is reddish or greenish.	When the picture is not taken with flash, it becomes reddish under an incandescent light, and greenish under a fluorescent light.
Many reddish circles appear on the playback picture.	Flick occurs on the lens caused by strong light like the sun.	Shoot the picture so that strong light will not go into the lens. Ex: The reflection of water caused by the sunlight.
		This occurs because of the characteristic of the image sensor.
		Thick black lines appear when shooting a subject with a strong contrast. Or, the picture has a spog border.
		The picture is dark even when its flash is used.
		The eye of this person is reproduced reddish when the flash is used.
The picture is white.		

Playing back sound

Symptom	Cause	Remedy
No sound is heard.	The AUDIO recording mode selector was set to OFF in recording.	Set the AUDIO recording mode selector to AUTO or MAN when recording.
	AUDI REC button was held to the left several times while recording with the AUDIO recording mode selector set to MAN.	Play record sound by using the MAPT2.
	AUDIO recording mode selector is set to OFF in playing back.	Play back the sound with the AUDIO recording mode selector set to AUTO or MAN.
Sound was too far away from the microphone in recording.	Sound was too far away from the microphone in recording.	Play into the microphone or use an external microphone.

Display window, etc.

Symptom	Cause	Remedy
The indications on the display window disappear and the power turns off.	In recording	Lightly press the shutter button. See page .
	In playing back	Press the shutter button or the LV button of the playback controller.
The camera does not operate.	Consumption of the battery pack is rapid.	Take the battery pack out, and reinsert it to reset the camera.
		Incomplete battery charge.
		Replace with a new battery pack.
		The battery pack becomes weak.
		If it is used in a place with an extremely low temperature, use it after warming the camera, for example, putting it into your pocket.